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b) transferring the communication from between the customer and the AI processor to between the customer and a human, wherein said transferring is substantially seamless such that the customer is substantially unaware of the transferring.

ELECTION

The applicant hereby elects to prosecute the invention of claims 1-42, without traverse.

REMARKS

Claims 1-48 are pending in the application. Claims 43-48 have been withdrawn from consideration as drawn to a non-elected invention.

Various dependent method claims are objected to on the basis that elements thereof are written as apparatus claims. Dependent claims 21, 23-26, 29, 30, 32, and 35-38 have been rewritten using more conventional method limitation language. It is submitted that the claims so rewritten are not narrowed in scope. If the Examiner believes any other claims are required to be so rewritten, an indication of exactly which claims is requested so that the applicant may comply.

Claims 20-42 stand rejected under 35 U.S.C. § 112, second paragraph, as indefinite. In this regard, correction has been made to claim 20. It is also believed that

corrections made in view of the above convention for method claims obviates potential indefinite rejections under 35 U.S.C. § 112, second paragraph, with respect thereto. Claim 39 has been amended to correct its claim dependency. Claims 40-42 have not been amended, as it is not clear to the applicant as to what amendment is required by the Examiner. The Examiner is requested to particularly point out what is required to be amended with respect to these claims or remove the rejection thereto.

Claims 1-3, 8-14, 17, 20, 22-25, 27-29, 31-36, and 39-41 stand rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Pat. No. 5,083,638 to Schneider. Claims 4-7, 15, 16, 21, 26, 30, 37, 38 and 42 stand rejected under 35 U.S.C. § 103(a) as obvious over Schneider. The applicant respectfully traverses the Examiner's rejections for the following reasons.

A key aspect of the invention, as claimed in claims 1 and 30, is to use artificial intelligence up to the point that those systems, due to limitations in the current technology, can no longer *process communication* (e.g., a verbal customer instruction) in a customer transaction. *If during processing of the communication*, the limitation in the AI system's ability to process the *communication* is reached, *only then* is the transaction 'handed off' to a human operator that can correct or complete the transaction; i.e., there is human intervention in a transaction that is *otherwise processed via artificial intelligence*. It should therefore be understood that the human intervention pertains to processing a *communication* between the customer and the POS transaction terminal.

For example, in claim 1, it is required that the “human-controlled response system [is] adapted intervene to interact with the customer *when said AI system has not satisfactorily recognized the verbal instruction from the customer.*” In claim 20, “upon determining by the AI routines or the customer that there is *a problem in said processing*, intervening by a human.” In claim 31, “providing real-time human support to said AI processor *for processing said communication* [between the AI processor and the customer].” In claim 40, “communicating with the customer; and *transferring the communication* from between the customer and the AI processor to between the customer and a human.”

In distinction, first, Schneider teaches a robotic point-of-sale (POS) checkout system in which a POS unit processes a transaction and, during the normal course of transaction processing, seeks input from a supervisory unit manned by a store employee. Second, no artificial intelligence (AI) is implemented. While Schneider teaches the use of a voice recognition for communication between the customer and the robotic POS, and the Examiner equates voice recognition with AI, voice recognition (i.e., recognizing a spoken word as corresponding to a word within a set vocabulary) is only one element of AI processing, in which a probabilistic calculation is carried to determine the intent behind a string of recognized words. Third, in Schneider the input of the supervisory unit is not a matter of a *failure* in regards to the POS unit’s ability to complete the transaction or *failure* in processing a communication between the customer and POS unit. Rather the supervisory unit performs a *required* ‘check’ to limit fraudulent activity and complete transactions that are outside the scope of the POS’s duties. That is, the input from the

supervisory unit concerns required elements of the POS transaction itself, and thus is required even if the POS completely, fully, and properly performs its duties. For example, in Schneider “*the present invention requires the supervisory employee to observe the video image of only a second unlike the constant monitoring that is required of typical video surveillance systems.*” (col. 4, lines 10-15) By way of the another example, the Schneider system *requires input from the supervisory employee* for verification of nonlabelled products (col. 4, line 15 - col. 5, line 68), even if the POS is doing everything it is designed to do and the communication between the customer and POS is completely and properly processed. As such, in Schneider, the supervisory employee input is provided with respect to elements of the transactions that are *not otherwise processed via artificial intelligence* and which do not relate to the *communication between the POS system and the customer.*

Moreover, claim 40 has been amended to include the limitation of now canceled claim 41 to further distinguish the claimed invention over Schneider. Claim 40 states that “transferring the communication from between the customer and the AI processor to between the customer and a human . . . is substantially seamless such that the customer is substantially unaware of the transferring”. Claims 34 and 36 claim similar subject matter. While the Examiner states that Schneider provides “seamless” functions, there is no indication or suggestion in Schneider that (1) any *transfer* of communication occurs, or (2) that a *communication* transfer is seamless such that the customer is substantially unaware of the transfer. Any communication between the customer and the supervisory

employee would clearly be one in which the customer is aware that the customer is now engaged in a supplementary communication with a human via a microphone and speaker.

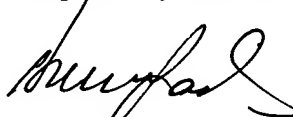
Furthermore, many of the details claimed in the dependent claims are neither taught nor suggested by Schneider. For example, the Schneider system is particularly adapted for the sale of goods, which can be, e.g., scanned or weighed to determine sale price. There is no teaching or suggestion of how to use a Schneider-type system in a services context, such as with restaurant food service, as particularly claimed in claims 21 and 26, where items are not physically brought by the customer to the POS for checkout. With respect to claim 24, there is no teaching or suggestion to provide feedback via AI routines. With respect to claim 29, there is no teaching or suggestion to provide the supervisory employee off-premises relative to the robot POS, particularly since the supervisory module is physically connected to the robot POS modules it supervises via a cable 140. With respect to claim 30, there is no indication or suggestion in Schneider that a verbal instruction from the customer to the robot POS is transmitted to the human supervisor. With respect to claim 31, as communication in the Schneider system is over a single discrete cable 140, there is no suggestion to use VoIP for such transmission. With respect to claim 32, the supervisory module of Schneider does not complete, correct or verify *communications*. With respect to claims 37, 38 and 42, Schneider fails to provide any teaching or suggestion regarding the use of an animated character for interaction between the AI process and the customer (claims 37 and 42) and for interaction between the human support and the customer (claims 38 and 42).

For the foregoing reasons, Schneider fails to teach or suggest the invention of claim 1 through 42. Therefore, claims 1-42 should be indicated as allowable over Schneider.

As required, a marked up copy of the rewritten claims is attached hereto.

In light of all of the above, it is submitted that the claims are in order for allowance, and prompt allowance is earnestly requested. Should any issues remain outstanding, the Examiner is invited to call the undersigned attorney of record so that the case may proceed expeditiously to allowance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "David S. Jacobson", with a checkmark to its right.

David S. Jacobson
Reg. No. 39,235
Attorney for Applicant(s)

GORDON & JACOBSON, P.C.
65 Woods End Road
Stamford, CT 06905
(203) 329-1160

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MARKED-UP PARAGRAPHS AND CLAIMS

In the Claims:

Please rewrite claims 20, 21, 23-26, 29, 30 and 32-40, as follows:

20. (rewritten) A method of processing a commercial transaction, comprising:

a) providing an interactive terminal;

b) eliciting a verbal instruction from a customer to the interactive terminal;

c) upon receiving verbal instruction from the customer to the interactive terminal, processing the verbal instruction with artificial intelligence (AI) routines; and
d) upon determining by the AI routines or the customer that there is a problem in said processing, [having a human intervene] intervening by a human to process the verbal instruction.

21. (rewritten) A method according to claim 20, wherein:

said [interactive terminal] step of eliciting a verbal instruction is adapted [to elicit] for eliciting a restaurant food order.

23. (rewritten) A method according to claim 22, wherein:

said providing feedback includes providing at least one of audio feedback and video feedback.

24. (rewritten) A method according to claim 22, wherein:

said providing feedback is controlled by AI routines.

25. (rewritten) A method according to claim 22, wherein:

said providing feedback is controlled by the human.

26. (rewritten) A method according to claim 22, wherein:

said verbal instruction is the order of a restaurant menu item, and said providing feedback includes at least one of,

- i) prompting the customer to add additional menu items to the order, and
- ii) prompting the customer to increase the size of the menu item order.

29. (rewritten) A method according to claim 20, wherein:

said intervening is performed from a location [the human is] located off-premises relative to said interactive terminal.

30. (rewritten) A method according to claim 20, wherein:

when a problem in said processing is determined, transmitting [said human receives] the verbal instruction over a voice over internet protocol (VoIP) network connection to said human.

32. (rewritten) A method according to claim 31, wherein:

said providing real-time human support comprises at least one of [completes, corrects and verifies] completing, correcting and verifying communications between said AI processor and the customer.

33. (rewritten) A method according to claim 31, wherein:

said providing real-time human support comprises establishing [establishes]
communication between said real-time human support and the customer.

34. (rewritten) A method according to claim 33, wherein:

said [providing real-time human support] establishing communication is
substantially seamless, such that the customer remains substantially unaware of said real-
time human support.

35. (rewritten) A method according to claim 31, wherein:

said providing real-time human support comprises transferring [transfers]
communication from between the customer and the AI processor to between the customer
and the human support.

36. (rewritten) A method according to claim 35, wherein:

said [transfer] transferring is provided substantially seamlessly, such that the
customer is substantially unaware of said transfer.

37. (rewritten) A method according to claim 31, wherein:

said communicating by the AI processor comprises animating a character [is via
an animated character].

38. (rewritten) A method according to claim 37, [further comprising] wherein:

said animating the character comprises interacting the character with the customer during said real time human support.

39. (rewritten) A method according to claim [31] 38, wherein:

said interacting occurs at an interactive terminal.

40. (rewritten) A method of processing a commercial transaction with a customer, comprising:

a) with an artificial intelligence (AI) transaction processor, communicating with the customer; and

b) transferring the communication from between the customer and the AI processor to between the customer and a human, wherein said transferring is substantially seamless such that the customer is substantially unaware of the transferring.